

LISTING OF THE CLAIMS

The following Listing of the Claims replaces all prior listings of the claims within this application.

Please amend claims 1, 5-11, 14-15 and 17 as follows.

Please cancel claims 2-3, 12 and 16.

Please add new claims 18-21 as follows.

1. (currently amended) A method for forming a patterned resist layer comprising:
 - providing a substrate;
 - forming a resist layer over the substrate ~~a blanket resist layer~~;
 - ~~exposing, while~~ employing a direct write charged particle beam method ~~susceptible to a proximity effect, to expose~~ the ~~blanket~~ resist layer to form ~~a charged particle beam exposed blanket resist layer having formed therein~~ a contiguous latent pattern within the exposed resist layer, wherein ~~the charged particle beam method employs when forming~~ the contiguous latent pattern comprises a series of adjacent direct write ~~charged particle beam shot~~ fractured pattern elements, ~~further wherein~~ and at least one adjacent pair of the series of adjacent direct write ~~charged particle beam shot~~ fractured pattern elements is separated by a gap; and
 - developing the ~~charged particle beam exposed blanket~~ resist layer to form a patterned resist layer.
2. – 3. (canceled)
4. (original) The method of claim 1 wherein the charged particle beam method is selected from the group consisting of electron beam methods and ion beam methods.

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5. (currently amended) The method of claim 1 wherein the ~~blanket~~ resist layer is formed of a positive resist material.

6. (currently amended) The method of claim 1 wherein the ~~blanket~~ resist layer is formed of a negative resist material.

7. (currently amended) ~~A method for forming a patterned resist layer comprising:~~

~~providing a substrate;~~

~~forming over the substrate a blanket resist layer;~~

~~exposing, while employing a charged particle beam method susceptible to a proximity effect, the blanket resist layer to form a charged particle beam exposed blanket resist layer having formed therein a contiguous latent pattern, wherein the charged particle beam method employs when forming the contiguous latent pattern a series of adjacent fractured pattern elements, further wherein at least one adjacent pair of the series of adjacent fractured pattern elements is separated by a gap having a gap width of from about 10 to about 20 nanometers; and~~

~~developing the charged particle beam exposed blanket resist layer to form a patterned resist layer. The method of claim 1 wherein the gap has a width of from about 10 to about 20 nanometers.~~

8. (currently amended) ~~A method for forming a patterned resist layer comprising:~~

~~providing a substrate;~~

~~forming over the substrate a blanket resist layer;~~

~~exposing, while employing a charged particle beam method susceptible to a proximity effect, the blanket resist layer to form a charged particle beam exposed blanket resist layer having formed therein a contiguous latent pattern, wherein the charged particle beam method~~

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~~employs when forming the contiguous latent pattern a series of adjacent fractured pattern elements, further wherein at least one adjacent pair of the series of adjacent fractured pattern elements is separated by a gap having a gap length of from about 100 to about 1000 nanometers; and~~

~~developing the charged particle beam exposed blanket resist layer to form a patterned resist layer. The method of claim 1 wherein the gap has a length of from about 100 to about 1000 microns.~~

9. (currently amended) The method of claim 1 further comprising:

forming a masking layer over the substrate a blanket target layer prior to forming ~~over the substrate the blanket resist layer; and~~

employing the patterned resist layer as a mask to pattern the masking layer ~~for forming from the blanket target layer a patterned target layer.~~

10. (currently amended) The method of claim 9 wherein the ~~blanket target~~ masking layer is ~~formed from a microelectronic material~~ selected from the group consisting of microelectronic conductor materials, microelectronic semiconductor materials and microelectronic dielectric materials.

11. (currently amended) A method for forming a photomask comprising:

providing a transparent substrate;

forming a masking layer over the transparent substrate ~~a blanket masking layer;~~

forming a resist layer over the ~~blanket~~ masking layer ~~a blanket resist layer;~~

~~exposing, while employing a direct write charged particle beam method susceptible to a proximity effect, to expose the blanket resist layer to form a charged particle beam exposed~~

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~~blanket resist layer having formed therein~~ a contiguous latent pattern within the exposed resist layer, wherein ~~the charged particle beam method employs when forming~~ the contiguous latent pattern comprises a series of adjacent direct write ~~charged particle beam shot~~ fractured pattern elements, ~~further wherein~~ and at least one adjacent pair of the series of adjacent direct write ~~charged particle beam shot~~ fractured pattern elements is separated by a gap, and the gap has a gap width of from about 10 to about 20 nanometers;

developing the ~~charged particle beam exposed blanket~~ exposed resist layer to form a patterned resist layer; and

~~patterning the blanket masking layer to form a patterned masking layer while~~ employing the patterned resist layer as a mask layer to pattern the masking layer.

12. (canceled)

13. (original) The method of claim 11 wherein the charged particle beam method is selected from the group consisting of electron beam methods and ion beam methods.

14. (currently amended) The method of claim 11 wherein the ~~blanket~~ resist layer is formed of a positive resist material.

15. (currently amended) The method of claim 11 wherein the ~~blanket~~ resist layer is formed of a negative resist material.

16. (canceled)

17. (currently amended) ~~A method for forming a photomask comprising:~~
~~providing a transparent substrate;~~
~~forming over the transparent substrate a blanket masking layer;~~
~~forming over the blanket masking layer a blanket resist layer;~~
~~exposing, while employing a charged particle beam method susceptible to a proximity effect, the blanket resist layer to form a charged particle beam exposed blanket resist layer having formed therein a contiguous latent pattern, wherein the charged particle beam method employs when forming the contiguous latent pattern a series of adjacent fractured pattern elements, further wherein at least one adjacent pair of the series of adjacent fractured pattern elements is separated by a gap having a gap length of from about 100 to about 1000 nanometers;~~
~~developing the charged particle beam exposed blanket resist layer to form a patterned resist layer; and~~
~~patterning the blanket masking layer to form a patterned masking layer while employing the patterned resist layer as a mask layer. The method of claim 11 wherein the gap has a length of from about 100 to about 1000 nanometers.~~

18. (new) A photomask patterned by employing a patterned resist layer as a mask layer, the patterned resist layer comprising a contiguous latent pattern, and the contiguous latent pattern comprising a series of adjacent fractured pattern elements, wherein at least one adjacent pair of the series of adjacent fractured pattern elements is separated by a gap.

19. (new) The photomask of claim 18, wherein the patterned resist layer is exposed by employing electron beam methods or ion beam methods.

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20. (new) The photomask of claim 18, wherein the gap has a gap width of from about 10 to about 20 micrometers.

21. (new) The photomask of claim 18, wherein the gap has a length of from about 100 to about 200 nanometers.